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Ventral Abdominal Wall Hernia
腹壁疝

Ventral Abdominal Wall Hernia Includes:
腹壁疝包括：

- Umbilical Hernia 臍疝
- Epigastric Hernia上腹疝
- Incisional Hernia 切口疝
- Lumbar Hernia 腰疝
- Spigelian Hernia 腹直肌疝

Ventral Abdominal Wall Hernia Repair
腹壁疝(小腸氣)修補術

- Ventral abdominal wall hernia has many different repair techniques nowadays, including open surgery or laparoscopic surgery.
  目前，腹壁疝氣的修補技術有很多種，包括開放性手術或腹腔鏡微創手術。
- Synthetic mesh repair is usually required for a better outcome.
  經常需要疝合成網修復才能獲得更好的結果。

Ventral Abdominal Wall Hernia Repair
腹壁疝氣修補術

Open Repair
開放式手術修復

- Consider for complex hernia
  考慮用於複雜性疝
- Higher risk of wound complications
  傷口併發症風險比較高
- Higher post operative pain
  術後疼痛比較多

Laparoscopic (Keyhole) Repair
腹腔鏡手術修復

The mesh can be placed through several tiny keyholes, resulting in much less tissue dissection; therefore, there is a lower infection rate and less pain after surgery.
能夠透過幾個微小的鎖孔放置網片，減少組織解剖，因此感染率更低，術後疼痛更少。

Keyhole Ventral Abdominal Wall Hernia Repair
微創腹壁疝氣修補術

- Underwent extensive research and development over the past 30 years
  過去 30 年經過廣泛研究和開發
- From placing the mesh within the peritoneal cavity to now placing it outside the peritoneal cavity within the layers of the abdominal wall
  從將網片放置在腹腔內到現在將網片放置在腹腔外的腹壁層內
- This type of surgery has become much more complex and requires extensive training
  這類手術變得更複雜，需要大量培訓

Keyhole Ventral Abdominal Wall Hernia Repair
微創腹壁疝氣修補術

1. Hernia mesh placed within the peritoneal cavity
   (IntraPeritoneal Onlay Mesh repair IPOM)
   疝網片放置在腹腔內

2. Hernia mesh placed behind the rectus muscle within the compartment layer
   (eTEP, RetroRectus) (Lap TAR)
   疝網放置在腹直肌後方的隔間層內

3. Hernia mesh placed at the true preperitoneal layers
   (PPOM / TePPOM/ Ventral TAPP)
   疝網放置在真正的腹膜前層

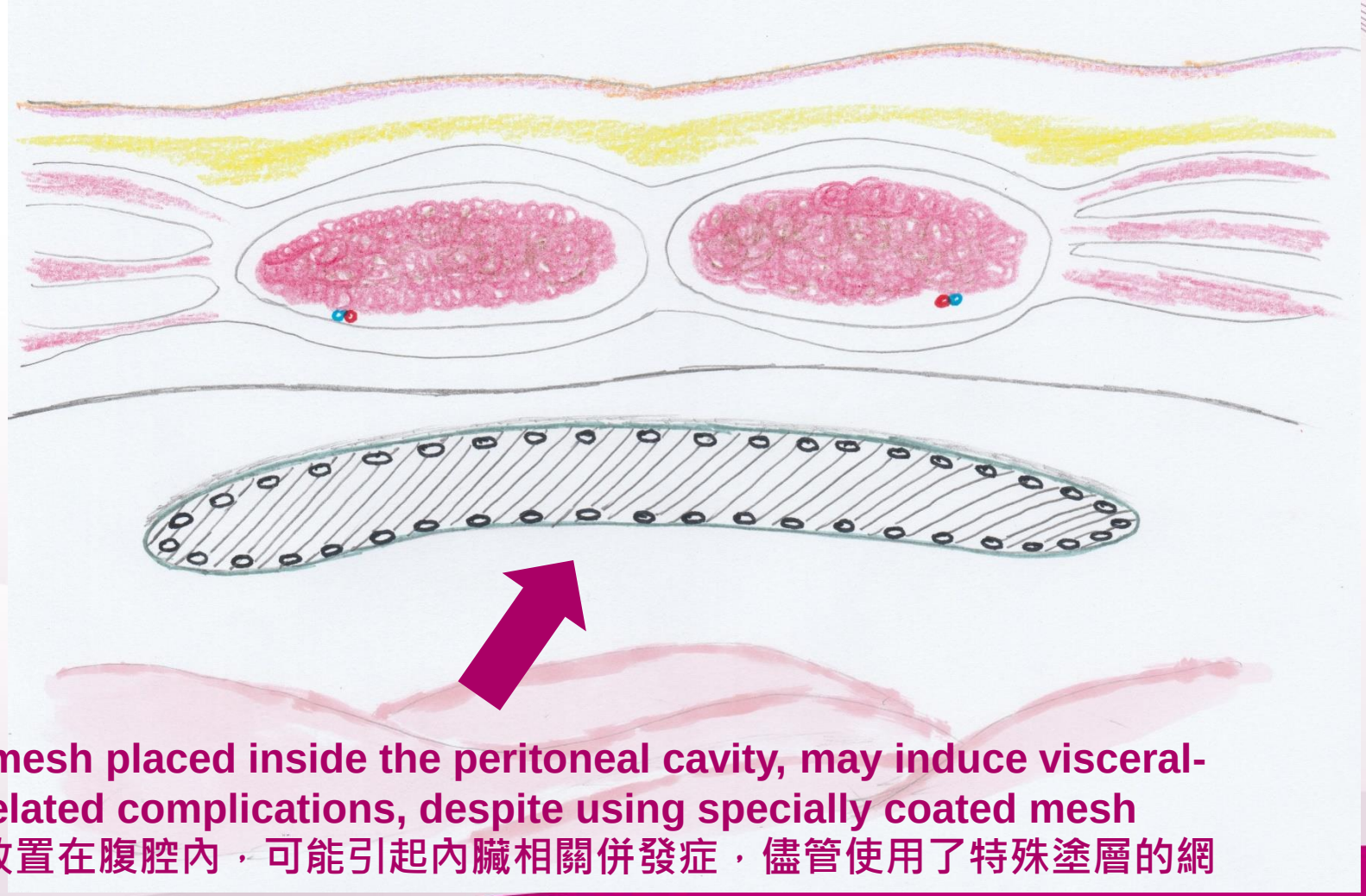
Keyhole Ventral Abdominal Wall Hernia Repair
微創腹壁疝氣修補術

- IPOM疝網片放置在腹腔內
- eTEP / RetroRectus +/- LapTAR (Lateral Transversalis Release)
- PPOM / TePPOM/ Ventral TAPP

IPOM
疝網片放置在腹腔內

- Operation is technically straightforward. The technique is easily reproducible in many centers.
  操作技術相對簡單 該技術易於被外科醫生掌握。
- The mesh is placed inside the peritoneal cavity in direct contact with the bowel. It must be secured to the abdominal wall using tackers spaced no more than 1 cm apart. This spacing is critical to prevent the bowel from becoming trapped between the mesh and the abdominal wall. Additionally, the use of these tackers is a known cause of increased postoperative pain.
  腹腔內網片直接接觸腸道。網片需固定在腹壁上，釘子間距不得超過 1 公分。這種緊密的間距對於防止腸被卡在網片和腹壁之間至關重要。這些釘子是術後疼痛加劇的已知原因。
- Although these meshes are specially coated with organ-friendly materials, as claimed, reactions such as bowel adhesion or even erosion and fistulation have been reported.
  雖然這些網狀材料聲稱使用了對人體友好的特殊塗層 ，但仍有發生腸道粘連、腸梗塞甚至瘻管等併發症的案例。
- There is no parameter to help identify which patient is at risk of these possible complications before the operation.
  在手術前，目前沒有任何參數能幫助識別哪些病人可能面臨這些潛在併發症的風險。
- These complications are difficult to manage.
  這些併發症難以治療。
- Many guidelines suggest using it with caution; the patient must be informed of the potential complications.
  許多指引建議謹慎使用；必須告知患者潛在的風險。

IPOM
疝網片放置在腹腔內



The mesh placed inside the peritoneal cavity, may induce visceral-related complications, despite using specially coated mesh
網片放置在腹腔內，可能引起內臟相關併發症，儘管使用了特殊塗層的網

eTEP, RetroRectus
疝網放置在腹直肌後方的隔間層內

- Placing the mesh within our abdominal wall outside the peritoneal cavity, avoid mesh-induced visceral complications such as adhesion or fistulation to bowel.
  將網片放置在腹腔外的腹壁內，可以避免因網片材料引起的內臟併發症，如粘連或腸道瘻管。

- Need to connect the left and the right rectus muscle compartments to house the mesh. Need to cut the midline fascia in order to join the left and right rectus spaces. Alteration of the abdominal wall structure.
  需要將左側和右側的直肌區域連接起來，以放置網狀材料。必須切開中線筋膜，以便連接左側和右側的直肌空間。這會改變腹壁的結構。

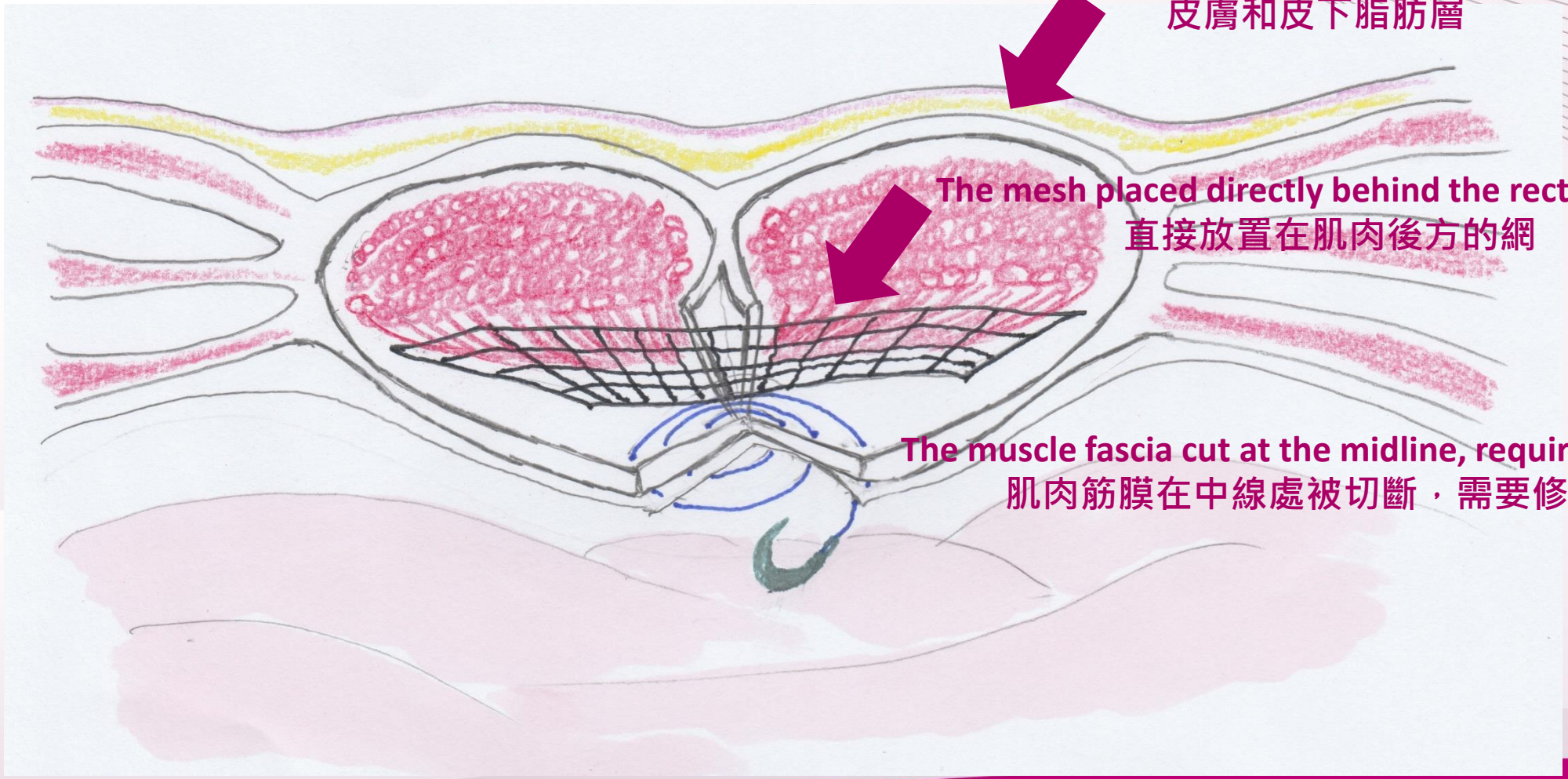
- If the space is not big enough, it may need lateral extension, which requires cutting (sacrificing) the transversalis abdominis muscle (Lap TAR – transversus abdominis release)
  如果肌肉隔間不夠大，可能需要進行側向延伸，這需要切斷（犧牲）腹橫肌 。(我們腹壁外側肌肉的最內層，三層肌肉之一）(Lap TAR)

- Extensive tissue dissection, extensive alteration of the muscle and fascial architecture of the abdominal wall.
  腹壁肌肉和筋膜結構的廣泛改變，需要進行廣泛的組織解剖和重建。

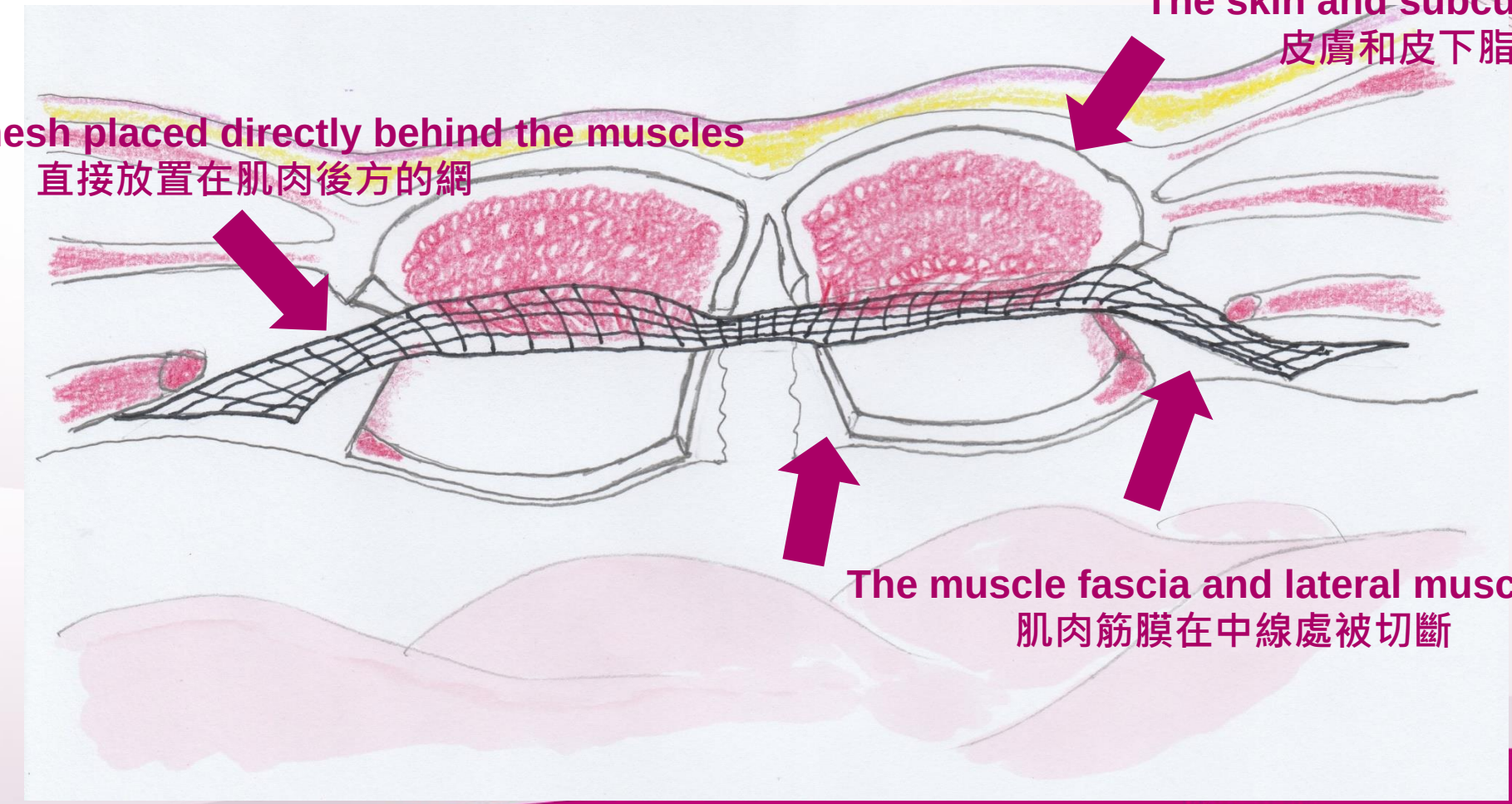
- Technically very complex, required high level of training.
  技術非常複雜，需要進階培訓。

- It’s an irreversible process; if complications arise, it is difficult to do any further surgical repair.
  這是個不可逆的過程；如果出現併發症，將很難進行進一步手術修復。因為肌肉和筋膜結構已透過手術發生了不可逆的改變。

eTEP, RetroRectus
疝網放置在腹直肌後方的隔間層內



eTEP and Lap TAR
when larger mesh requires lateral extension
疝網放置在腹直肌後方的隔間層內

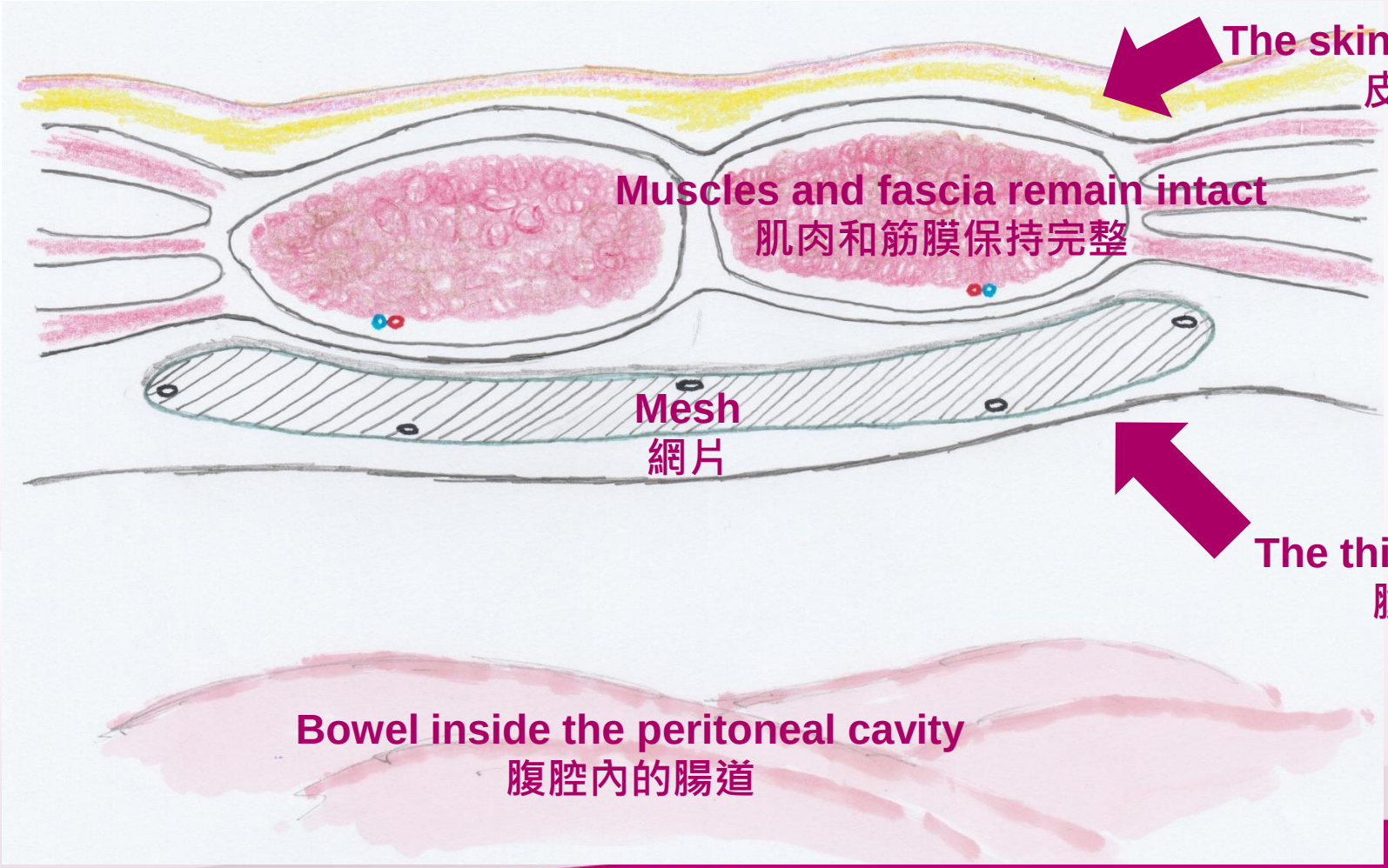


PPOM, Ventral TAPP
疝網放置在真正的腹膜前層

- Placing the mesh between the thin covering peritoneum and the muscle fascia.
  將網片置於薄薄的腹膜覆蓋層（腹膜）和肌肉筋膜之間。
- Does not involve any fascia or muscle resection.
  這不涉及任何筋膜或肌肉切除。
- This approach positions the mesh in a more natural, extraperitoneal location, preventing complications with the abdominal organs.
  此技術將網片置於更自然的腹膜外位置，從而避免網片引起的內臟併發症。
- Enjoy both the very good post operative result and at the same time avoid any mesh-induced complication.
  既能享受良好的術後效果，又能避免網片引起的併發症。
- Technically demanding as the peritoneum is a very thin layer of tissue covering our abdominal organs.
  由於腹膜是覆蓋腹部器官的一層非常薄的組織，因此技術要求很高。
- But this is the most physiological technique for the patient, allowing the mesh to be placed outside the peritoneal cavity without major destruction or alteration of the abdominal wall muscles and architecture. Thus, after the operation, the abdominal wall remains more natural compared to all the other techniques.
  但這對患者來說是最自然的技術，能夠將網片放置在腹腔外，而不會對腹壁肌肉和結構造成重大破壞和改變。因此，與所有其他手術技術相比，腹壁保持最自然。

PPOM, TePPOM, Ventral TAPP
疝網放置在真正的腹膜前層

The most undisturbed technique placing the mesh outside the peritoneal cavity, while having a secure long-term result.
將網片放置在腹腔外的最不受干擾的技術，同時具有安全的長期效果。



For ventral abdominal wall hernia, please consult our specialised surgeons for an opinion.

如有腹壁疝(小腸氣)的疑問，
請諮詢我們的專業外科醫生以獲取意見。